

REMARKS

Claims 1-145 are pending in this application. Claim 6 has been amended to depend from claim 1.

Applicants note with appreciation that claims 1-125 are allowed.

The Office Action rejects claims 126-129, 136-138, 140-142, 144 and 145 under 35 U.S.C. 102(b) as being allegedly anticipated by U.S. Patent No. 5,828,660 to Baum et al. (“Baum”). The Office Action rejects claims 131-135 under 35 U.S.C. 102(b) as being allegedly anticipated by U.S. Patent No. 6,563,880 to Hunsinger et al. (“Hunsinger”). Finally, the Office Action rejects claims 130, 139 and 143 under 35 U.S.C. 103 as being unpatentable over the combination of Baum and U.S. Patent No. 6,377,782 to Bishop et al. (“Bishop”).

The subject matter of claims 126-145 is directed to concurrently or simultaneously transmitting from a communication device first and second signals that at least partially overlap in frequency. Because these signals have this partial frequency overlap, a portion of the frequency bandwidth of one of the signals is filtered out with a notch filter “to make room” for the second signal. Specifically, the frequency location and bandwidth that is filtered out from the first signal coincides with the frequency location and bandwidth of the second signal. When the signal resulting from this notch filtering process is added to the second signal, the resulting composite signal essentially represents the first and second signals. The composite signal is then transmitted from the communication device.

Baum is directed to a two-way communication system that allows for use of spectrally overlapping transmissions on a reverse link, that is, from a plurality of subscriber stations to a base station. According to Baum, such multiple reverse link transmissions occur simultaneously from the plurality of subscriber units. Interference between the multiple transmitting overlap bandwidth subscriber units is avoided by coordinating parameters of the transmit signals from each of the separate subscriber units. (Baum, col. 2, lines 33-46.)

By contrast, claims 126-145 state that the same device simultaneously transmits first and second signals that overlap in frequency bandwidth by filtering out a portion of one of the signals to make room for the other signal. This is totally different from the

teachings of Baum, where multiple separate subscriber devices transmit signals that have frequency overlapping characteristics, using parameters for the signals to enable the subscriber devices to nevertheless transmit signals to a common destination, e.g., to the base station.

Hunsinger is directed to a communication method that generates a signal having a wideband spectrally-shaped set of mutually orthogonal basis signal waveforms of substantially equal duration and bandwidth. The set of waveforms are digitally modulated and summed together, along with a wideband reference signal. An optional FM analog signal may also be sent with these signals. The resulting composite signal is broadcasted to at least one receiver. A receiver separates the analog FM signal from the digital signal and demodulates the digital data-carrying waveforms to produce a stream of digital data. (Hunsinger, col. 4, lines 1-22.) Hunsinger discloses that one application of this technique is for an FM radio station to simultaneously broadcast the same program both digitally and with an analog FM signal using the same transmitting antenna.

Hunsinger further discloses use of a notch filter 105 in a receiver shown in FIG. 20. According to Hunsinger, the notch filter 105 "substantially eliminates the analog FM component of the composite FM/digital signal, the analog FM component being irrelevant to reception and processing of the digital signal made up of lobes 63 and 65." (Hunsinger, column 19, lines 42-50.) The notch filter in Hunsinger is used in the receiver to filter the received composite signal. Hunsinger does not teach the use of a notch filter in the course of generating a composite signal (from first and second transmit signals) for transmission. Hunsinger is directed to a completely different communication method from the subject matter of claims 126-145.

For these reasons, it is respectfully requested that the rejection of independent claims 126, 131, 136, 140 and 144 should be withdrawn. In addition, the rejections of the various dependent claims based on Baum, Hunsinger or the combination of Baum and Bishop should be withdrawn for the same reasons. In view of the distinctions set forth above between the subject matter of claims 126-145 and Baum, Bishop does not any teaching that, when taken in combination with Baum, pertains to the subject matter of claims 130, 139 and 143.

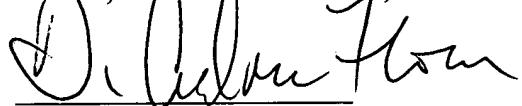
It is respectfully submitted that the present application is in condition for allowance. The Examiner is invited to telephone the undersigned in the event there are any further questions about this application.

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